

Nonnative melaleuca under control at Big Cypress National Preserve

By William A. Snyder, Antonio J. Pernas, and James N. Burch

IN 2003, BIG CYPRESS NATIONAL PRESERVE achieved a major victory in its 19-year battle with the exotic plant *Melaleuca quinquinervia* by completing the initial treatment of all known populations within the preserve. Melaleuca, a native of Australia, was introduced into Florida in 1906 as an ornamental. In the 1930s it was planted extensively to create forests in the swamps. It grows rapidly and produces dense monocultures that displace native plant communities and provide little food for wildlife.

On February 4, National Park Service Director Fran Mainella was on hand to cut the symbolic last melaleuca near preserve headquarters in Ochopee, Florida. “The National Park Service has been treating melaleuca since 1984 and has dealt with about 14 million stems at last count,” Mainella said. “We know this war will go on but we are marking a major victory in the initial effort to eradicate this difficult exotic species.”

Recognizing the need to join forces to stop the damaging impacts of melaleuca and other exotics, a group of resource managers in concert with land management agencies, research scientists, industry, and

“[Melaleuca] grows rapidly and produces dense monocultures that displace native plant communities and provide little food for wildlife.”

other interested groups formed the Florida Exotic Pest Plant Council (FLEPPC) in 1984. The council prioritized exotic pest plants in order to begin developing species-based management plans that incorporated tactical elements, priorities for funding, and strategies for tackling the broader issues of controlling these species. Those early efforts paved the way for an integrated pest management approach initiated in 1984 at Big Cypress and have resulted in the treatment of more than 14 million melaleucas at a cost of \$3.5 million.

In Big Cypress National Preserve, annual systematic reconnaissance flights revealed that melaleuca reached the height of its infestation in 1992. The tree species at varying densities occupied 186 square miles (482 sq km) of sensitive wetlands within the preserve. The main goal of treatment was not eradication, but rather bringing melaleuca to a maintenance level, a goal that has now been achieved. That is not to say there is no longer any melaleuca in the preserve. On the contrary, treatments and reconnaissance will continue in perpetuity, as seed sources occur throughout this part of Florida. Also, several problematic invasive plants still occur and have yet to be fully addressed. Brazilian pepper (*Schinus terebinthifolius*) occupies more than 1 million acres (405,000 ha) in southern Florida. And perhaps the most serious threat yet, Old World climbing fern, imported from Southeast Asia, is spreading unabated throughout the greater Everglades ecosystem.

exotic plant management

At the height of its infestation more than a decade ago, melaleuca stands infested some 186 square miles (482 sq km) of sensitive wetlands in Big Cypress National Preserve. An integrated pest management program involving many partners was critical to the success of reducing the invasive species to maintenance levels.



The control of melaleuca within Big Cypress National Preserve would not have been possible without a commitment from preserve management, FLEPPC, the Florida Department of Environmental Protection, South Florida Water Management District, Miami-Dade County, the U.S. Department of Agriculture, the Florida/Caribbean Exotic Plant Management Team, and many volunteers. This model of partnerships used in controlling melaleuca was transformational to Big Cypress National Preserve and shows that with commitment we can combat harmful invasive plants and continue to preserve our nation's natural heritage. ■

bill_snyder@nps.gov

Forestry Technician, Big Cypress National Preserve, Florida

tony_pernas@nps.gov

Exotic Plant Management Specialist, Florida/Caribbean Exotic Plant Management Team, Big Cypress National Preserve, Florida

jim_burch@nps.gov

Resource Management Specialist, Big Cypress National Preserve, Florida